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(54) Title: ASSIGNING CONTROLLED ACCESS TO SECURABLE DEVICES

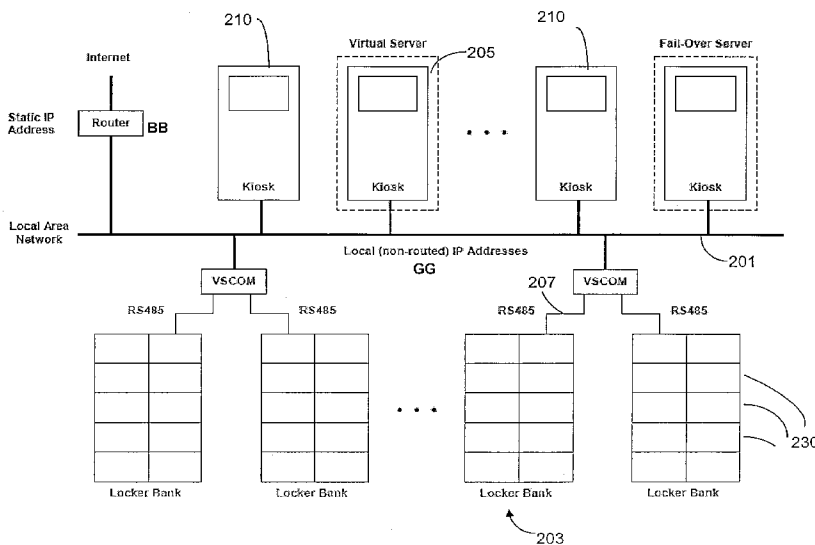


FIG. 2

(57) Abstract: Controlled access to a securable device is assigned whereby a kiosk is operable to assign an authorized user an ability to access a securable device selected from among a plurality of securable devices located remotely from the kiosk. The kiosk associates a unique personal identification number (PIN) with the authorized user and with the selected securable device, and is operable to transmit the unique PIN to the selected securable device, inform the user of the unique PIN; provide the user with location information of the selected securable device. The selected securable device is adapted to accept entry, at the securable device, of a PIN, and permits access upon entry of the unique PIN.

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ASSIGNING CONTROLLED ACCESS TO SECURABLE DEVICES

Cross References to Related Applications

[0001] This patent application claims the benefit of U.S. Provisional Application No. 60/987,257, filed on November 12, 2007, the disclosure of which is hereby incorporated by reference into the present patent application in its entirety.

Field

[0002] The invention relates to assigning controlled access to securable devices such as lockers and other temporary storage enclosures, vehicles, vending machines, luggage carts and rental appliances.

Background

[0003] Assigning controlled access to a securable device (for example a storage locker or other rental device) in a cost effective, secure and customer-convenient manner is a continuing challenge in many business contexts.

[0004] For example, entertainment venues such as ski areas, amusement parks and water parks often provide storage lockers and other equipment that a guest can rent for a period of time to store personal belongings or to enhance enjoyment of the venue. For example, storage lockers may be used when a guest is taking a ride on a water slide, when it gets too warm to ski with excessive clothing, when the personal articles (e.g. cameras) one is carrying are not suitable for a "thrill ride" such as a roller-coaster, and in other similar types of situations. Some users will use the locker only to store a wallet while others will use the lockers to store multiple purses, backpacks, etc.

[0005] Normally there is a charge for using a locker. Historically, small lockers that could be rented for a quarter were the norm. Recently, as the cost of doing business in these venues has increased, it has become unviable to only charge a few coins for the rental and the operators of such rental facilities (whether an owner of a venue or a concessionaire) have been charging more. In some venues there is an attendant that collects money from the guest and then hands them a mechanical

key. The guest can then use the locker they are assigned for the time period they have paid for. This system has disadvantages: first, attendant salaries can be a major expense; second, there are accountability issues because it is difficult to audit the true rental income; and third; it is difficult to maintain security with mechanical keys. The keys may be passed around and not turned in. The operator must then obtain new keys and/or change the locks.

[0006] The limitations and disadvantages presented by coins and mechanical keys have motivated the development of locker systems based on electronic hardware and software. Such electronic systems may be designed to accept cash (banknotes) or credit cards and can provide financial reports based on system utilization. These systems conventionally employ a self-service pay station (or "kiosk"), and a server that in turn controls a number of lockers. In such conventional electronic systems, a user may be requested to follow directions for renting a storage locker (or other rental unit or securable device) by way of instructions presented on an electronic display or touch screen monitor. At the kiosk, the user may select a locker or other securable device, make a payment for a rental period, and either obtain or enter a personal identification number ("PIN") for the assigned locker. Alternately, some known systems have employed biometrics and electronic RFID-based tokens in place of user codes. Once the user has completed a rental transaction, the user may be directed to proceed to the assigned locker which the system has enabled for use. Enabling for use, conventionally, means remotely unlocking the storage locker. The user can then access the locker and store articles therein by opening its unlocked door, storing the articles, and shutting and locking the door.

[0007] Thereafter, each time the user wants to access the locker, the user must first proceed to the kiosk, enter the PIN or scan the personal RFID tag and only then proceed to his or her locker. The user is normally allowed to access the locker frequently during their rental period. This means that the kiosk serves as both the rental station and the individual point-of-access for all the lockers coupled to the kiosk.

[0008] The above described architecture gives rise to several problems. For example, when the lockers are located at an entertainment venue, guests usually arrive and leave such a venue at similar times based on the time the area opens and

closes and what special events may be scheduled. Consequently, a significant queue of guests will be assembled at the kiosk during these peak usage periods. This is inconvenient for the user and decreases revenue because new renters cannot get to the kiosk when it is being used by current renters trying to rent new lockers or gain access the locker they have already rented. This problem is amplified by the fact that users are normally in groups of family and friends, each wanting to use their rented locker multiple times during the rental period. Other guests become frustrated when this happens. Furthermore, security risks arise because of the heightened chance that a guest will see the personal code of another guest at the pay station, or that a locker unlocked remotely by the kiosk upon entry of an authorized user's PIN will be accessed by an unauthorized person before the authorized user arrives at the locker after leaving the kiosk.

[0009] The existing architectures also pose reliability and customer satisfaction issues because when either the kiosk or the electronic communication network connecting the kiosk to the rental units fails, users are not able to access their rental unit.

[0010] Accordingly, a need exists for a locker system that will eliminate the preceding shortcomings

Summary of the Invention

[0011] Controlled access to a securable device is assigned whereby a kiosk is operable to assign an authorized user an ability to access a securable device selected from among a plurality of securable devices located remotely from the kiosk. The kiosk associates a unique personal identification number (PIN) with the authorized user and with the selected securable device, and is operable to transmit the unique PIN to the selected securable device, inform the user of the unique PIN; provide the user with location information of the selected securable device. The selected securable device is adapted to accept entry, at the securable device, of a PIN, and permits access upon entry of the unique PIN.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Fig. 1 illustrates an apparatus embodiment of the invention.

[0013] Fig. 2 illustrates an example of a high level component architecture usable in an embodiment of the invention.

[0014] Fig. 3 illustrates an example of a high level software architecture usable in an embodiment of the invention.

[0015] Fig. 4 is a flow chart illustrating steps performed in connection with an embodiment of the invention.

[0016] Figs. 5-8 illustrate examples of a user interface suitable for an embodiment of the invention.

Detailed Description

[0017] The present inventors have recognized that problems and deficiencies inherent in the prior art described above may be mitigated by a securable device such as, for example, a storage locker, adapted to accept entry of a PIN such that the securable device permits access only upon entry of a unique PIN communicated to an authorized user and to the securable device by a remotely located kiosk, where the kiosk is operable to transmit the unique PIN to the selected securable device, inform the user of the unique PIN, and provide the user with location information of the selected securable device.

[0018] Referring now to Figure 2, in an embodiment, one or more such kiosks 210 may be networked together with any number of securable devices, such as lockers 230. Although in Fig. 2 and elsewhere in the specification and drawings, reference is made to "Lockers" it will be understood by one skilled in art that a securable device, as contemplated by the inventors, includes many types of devices or equipment amenable to having controlled access assigned to an authorized user. For example a securable device may include a rental appliance (such as, for example, a clothes washer or dryer), a vending machine, a rental vehicle, or a recreation or entertainment device.

[0019] As illustrated in Fig. 2, any locker 230 within a facility may be rented from any other kiosk 210 connected to a facility local area network 201. Furthermore, the facility local area network 201 may be communicatively coupled to the Internet, enabling a user to go on-line to rent a locker 230 in advance. Being on-line also enables an operator of the system to view current rental status in-real-time and to

manage functional attributes on-line. These attributes could include pricing, messaging on the touch screen, report generation, and any other attributes designated by the operator.

[0020] Further, kiosk 210 may be operable as a point of sale device. In an embodiment, kiosk 210 may accept payment in the form of cash, a credit card, a debit card and/or an RFID device. In a further embodiment, kiosk 210 may be adapted to provide a user with an opportunity to procure, for example, by rental or purchase, related goods and services. For example, in a water park setting, equipment (such as tubes and other devices that are used in water rides) could be rented by the guest. At a ski resort, lift tickets, ski lessons and/or ski equipment may be offered. Kiosk 210 may include a printer capable of printing a proof of purchase receipt that includes information on the goods and services purchased. In an embodiment, a bar code may be printed on the receipt that may then be electronically scanned when the receipt is redeemed for the goods and services purchased. Electronically scanning the receipt at redemption provides further opportunity for the system to automate and track utilization.

[0021] A securable device, such as a locker 230 may be secured by way of an individual electronic lock unit and be communicatively coupled to kiosk 210. The securable device may function in a networked mode, under common control of, for example kiosk 210, or in a stand-alone mode that may advantageously be adapted in the event of a power or network failure. Each securable device (and/or its individual lock unit) may have the capability, after receiving an authorized user's unique PIN from kiosk 210, to accept entry of a PIN, and permit access only upon entry of the unique PIN. Advantageously, this capability may be operable irrespective of whether the securable device remains communicatively coupled to kiosk 210. For example, the securable device is advantageously adapted to store one or more current user PIN's in such a manner that a network or power failure will not interfere with the user's ability to access the securable device.

[0022] Referring now to Fig. 1, the securable device may provide a user interface such as a touch pad 101 or the like to input a PIN and an "end rental" button 102 that enables the user to end the rental as part of the process of using the individual locker 230. When used, this feature may clear the individual locker 230 for re-rental to a new user. In an embodiment, the user interface may provide means to output

information or messages to the user by way, for example, of one or more indicator lights, a message screen or an audio message indicator.

[0023] Access to securable devices by the system operator may be provided, for example by way of a “master code”. Such a master code may enable system operator employees such as on-site attendants to access individual lockers in the event the guest has forgotten his user code. Advantageously, for security reasons, a fresh master code may be regenerated on a daily basis. Similarly, “maintenance codes” that may be used by on-site attendants for opening a group or all lockers simultaneously for cleaning at the end of the day may be generated daily or on any other periodic basis.

[0024] In an embodiment, each individual securable device may have the ability to retain, after receiving a currently active unique PIN code from kiosk 210, an audit trail of use for that individual locker and the ability to identify which type of code that was used to access a particular locker.

[0025] In an embodiment, each touchpad 101 may comprise an intelligent electronic keypad and electronic interconnect capable of being plugged into a local area network. Electrical and mechanical interfaces to any number of securable devices may be provided by a common frame or “rack” assembly. This assembly may interface with and provide power to both the electronic key pad and the lock mechanism, enabling a locker unit to be opened once a correct PIN code has been entered. In an embodiment, upon entry of the correct PIN, at the individual locker unit, the electronic keypad assembly provides power to the lock mechanism, enabling the securable device to be accessed by the user or attendant.

[0026] In an embodiment, entry of the correct PIN enables operation of a mechanical actuator 103 (including, for example, a lever, knob, or push button) to disengage the lock mechanism and to open the locker door. Mechanical actuator 103 may, for example, be located on a stationary locker frame or mounted on a locker door. Advantageously, a user’s manual operation of mechanical actuator 103 may provide a portion or all of the force and power needed to disengage or engage a lock mechanism (such as a bolt, for example) thereby minimizing the need to utilize solenoids and motors to move the lock mechanism. The inventors have found that these conventional electrical devices have poor reliability, particularly when deployed

in a locker environment associated with, for example, a ski area or theme park where there are extreme temperatures, water contamination and other challenging conditions including frequent and aggressive use.

[0027] Referring now to Fig. 2, it is illustrated how kiosk 210 may be communicatively coupled by local area network (LAN) 201 to a number of lockers 230 and to at least one virtual server 205. Advantageously, server 205 may be virtual server operating on existing processing means within kiosk 210. In an embodiment, LAN 201 may be a wireless LAN. Advantageously, a group of lockers 230 (a "locker bank" 203) may be connected to LAN 201 by way of a serial data bus 207.

[0028] Referring to Fig. 3, a software architecture adapted for use with a system embodiment may include several kiosks 210. Virtual server 205 (which, in an embodiment, may be a kiosk 210 assigned certain additional tasks and having certain capabilities not ordinarily required by every kiosk 210) may include system controller 301, and locker supervisor 303. Virtual server 205 may be communicatively coupled to any number of client kiosks 210, which may be under the supervision of system controller 301. Advantageously, persistent storage 305 provides a central location to collect and store, for example, transaction data generated by the various client kiosks 210.

[0029] Each kiosk 210 may be provided with an embedded browser 311 that may provide a user interface and is adapted to execute one or more kiosk applications 312. Kiosk applications 312 may include, for example, an application to conduct a locker rental transaction, to rent or sell related items, and to provide administration functions such as reports of transactions, locker usage statistics and the like. Embedded browser 311 may be adapted to conduct a rental or other transaction whereby the user remits payment by way of a bank (debit or credit) card processed by card service module 315, or by a cash payment processed by bill service module 313. Transactions paid by bank card may be verified and settled by way of payment service module 317 which may be communicatively coupled via a payment gateway to a third party transaction settlement service as is known in the art. Print service module 319 may interface with embedded browser 311 and a receipt printer to provide printed proof of sale receipts. Thus, the kiosk 210 may be operable as a free standing electronic funds transfer point of sale (EFT POS) device.

[0030] Advantageously, kiosk 210 may have a display screen providing a graphical, touch screen user interface using methods known in the art. For example, kiosk 210 may provide a screen display such as that illustrated in Fig. 5, providing a user with options for various size lockers. Once a transaction is selected by the user, the user may be presented with a screen display such as that illustrated in Fig. 6, providing the user with an itemized list of costs, a total cost, and payment options. In an embodiment, the user is permitted to select his or her own PIN for use in connection with a rental. This PIN is then associated with a selected locker by kiosk 210. Where the PIN is selected by the user, the user may advantageously be presented with a screen display such as that illustrated in Fig. 7, by which the user may be enabled to enter the desired PIN on display of a key pad similar to the physical keypad located at each locker or other securable device.

[0031] In an embodiment, kiosk 210 may be operable to interface with a system operator or administrator. Accordingly kiosk 210, in response, for example, to entry of an appropriate management code or key, may be adapted to provide a screen display such as that illustrated in Fig. 8, whereby an administrator or other authorized agent of the system operator may obtain access to one or to a block of lockers and/or may produce certain administrative reports such as sales records, usage rates, trouble reports, and the like.

[0032] Referring now to Fig. 4, a series of potential interactions between a user and the kiosk are illustrated. At step 401, for example, the kiosk may present the user with a "welcome screen" or the like, and provide a user having an existing account to so indicate. If the user does not have an account, the kiosk may, at step 403, provide an opportunity for the user to open an account. If the user declines, step 405, the user will next be presented with an opportunity to select or be assigned a locker, as discussed further below. If the user accepts the opportunity, step 407, to open an account, the kiosk may present the user, step 407, with a registration site at which the user may enter personal and financial information, for example. When the user has an existing account and enters a personal code, step 411, or successfully registers, step 409, the user may be presented with the decision, step 413 whether to use that personal code as a PIN, step 415, for subsequent locker access, or to request, step 417, a new PIN.

[0033] Locker selection may occur as illustrated in step 419. In an embodiment, a user is given an opportunity to select a specific locker by, for example, location. In another embodiment, the user is permitted to specify, for example, the locker size and/or other general parameters regarding the locker (e.g., its general location within a venue) but the specific locker number assignment is made by the system. Advantageously, locker assignments may be selected by the system and the selection determined, for example, based on actual assignment of other securable devices, projected assignment of other securable devices, and/or reserved assignment of other securable devices. Thereby, for example, overcrowding caused by a number of users simultaneously accessing adjacent lockers may be minimized.

[0034] Next, the user may be provided the opportunity to select, step 421, a duration for the rental, after which the user may be provided, step 423, with one or more payment options. Because the kiosk may operate as an EFT POS, electronic payment means may be subject to a conventional approval process, step 425. In the event of a disapproved electronic transaction, step 427, the user may be given the opportunity to provide an alternate payment means, or to cancel the transaction, step 429. Upon acceptance of payment, a locker access code (unique PIN) will be generated, step 431. In an embodiment, the unique PIN is specified by the user. Alternately, the unique PIN may be randomly generated at the kiosk. In either case, the unique PIN is transmitted to the selected locker, and the user is informed of the unique PIN.

[0035] In an embodiment, at least some receipts may be imprinted with a bar code or the like and serve as coupons for merchandise or services to be fulfilled at another location. For example, the kiosk may be operable to accept payment for rental of recreation equipment appropriate to the venue. In such case the user, having paid for the rental, may be provided by the kiosk with a bar coded receipt which may be presented for fulfillment, for example, at an appropriate, separate location (where the equipment is normally stored and vended, for example).

[0036] Various specifications could apply to a locker system as described above. These specifications could include information about the functional characteristics of the system; the physical characteristics of the system; the power requirements of the system; the cabling necessary to interconnect all aspects of the lockers, kiosks, and

controllers (along with any other components); and the software contained within the system.

[0037] Those of skill in the art would understand that information and signals may be represented using any of a variety of different technologies and techniques. For example, data, instructions, commands, information, signals, bits, symbols, and chips that may be referenced throughout the above description may be represented by voltages, currents, electromagnetic waves, magnetic fields or particles, optical fields or particles, or any combination thereof.

[0038] The various logical blocks and algorithm steps described herein may be implemented as hardware, software, or combinations of both. Whether such functionality is implemented as hardware or software depends upon the particular application and design constraints imposed on the overall system. The described functionality may be implemented in varying ways for each particular application, but such implementation decisions should not be interpreted as causing a departure from the scope of the present invention.

[0039] The various illustrative logical blocks, modules, and circuits described in connection with the embodiments disclosed herein may be implemented or performed with a general purpose processor, a digital signal processor (DSP), an application specific integrated circuit (ASIC), a field programmable gate array (FPGA) or other programmable logic device, discrete gate or transistor logic, discrete hardware components, or any combination thereof designed to perform the functions described herein.

[0040] Methods described in connection with the embodiments disclosed herein may be embodied directly in hardware, in a software module executed by a processor, or in a combination of the two. A software module could reside in any form of storage medium known in the art, including, without limitation, RAM, ROM, or flash memory, a CD-ROM, a removable disk, or. In the alternative, the storage medium may be integral to the processor. The processor and the storage medium may reside in an ASIC. In the alternative, the processor and the storage medium may reside as discrete components in a user terminal.

[0041] The previous description of the disclosed embodiments is provided to enable any person skilled in the art to make or use the present invention. Various

modifications to these embodiments will be readily apparent to those skilled in the art, and the generic principles defined herein may be applied to other embodiments without departing from the spirit or scope of the invention. Thus, the present invention is not intended to be limited to the embodiments shown herein but is to be accorded the widest scope consistent with the principles and novel features disclosed herein.

[0042] The previous description of the disclosed embodiments is provided to enable any person skilled in the art to make or use the present invention. Various modifications to these embodiments will be readily apparent to those skilled in the art, and the generic principles defined herein may be applied to other embodiments without departing from the spirit or scope of the invention. Thus, the present invention is not intended to be limited to the embodiments shown herein but is to be accorded the widest scope consistent with the principles and novel features disclosed herein.

[0043] What is claimed is:

Claims

1. A system for assigning controlled access to a securable device, said system comprising:

a kiosk operable to enable an authorized user access to a securable device, said securable device being selected by the system from among a plurality of securable devices located remotely from the kiosk, by associating a unique personal identification number (PIN) with the user and with the selected securable device, wherein:

the kiosk is operable to transmit the unique PIN to the selected securable device; inform the authorized user of the unique PIN; and provide the authorized user with location information of the selected securable device; and

the selected securable device is adapted to accept entry, at the securable device, of a PIN, and permits access upon entry of the unique PIN.

2. The system of claim 1, wherein the securable device is a storage locker.
3. The system of claim 1, wherein the securable device is at least one of a rental appliance, a vending machine, a rental vehicle, a recreation device.
4. The system of claim 1, wherein the unique PIN is specified by the authorized user.
5. The system of claim 1, wherein the unique PIN is randomly generated at the kiosk.
6. The system of claim 1, wherein the kiosk is operable as a point of sale device.
7. The system of claim 6, wherein the kiosk accepts payment in the form of at least one of cash, a credit card, a debit card and a RFID device and prints a proof of payment receipt.
8. The system of claim 6, wherein the point of sale device provides the user with options to procure related goods and services.
9. The system of claim 1, wherein the kiosk requires payment from the user prior to

enabling access to the securable device.

10. The system of claim 1, wherein the kiosk selects the selected securable device, said selection being determined based on at least one of: actual assignment of other securable devices, projected assignment of other securable devices, and reserved assignment of other securable devices.

11. The system of claim 1, wherein the kiosk is communicatively coupled to the plurality of securable devices over a LAN.

12. The system of claim 11, wherein the LAN is a wireless LAN.

13. The system of claim 1, wherein the kiosk is operable to provide an administrator with access to at least one of the plurality of securable devices.

14. The system of claim 1, wherein the kiosk is operable to provide an administrator with at least one of: sales records, usage rates, trouble reports.

15. The system of claim 1, wherein the selected securable device is manually operable, and is adapted to operate manually only after entry of the unique PIN.

16. The system of claim 1, wherein the controlled access is assigned according to terms.

17. The system of claim 16, wherein the terms are at least one of selected by the authorized user and agreed to by the authorized user.

18. The system of claim 17, wherein the terms comprise at least one of price of the controlled access, duration of the controlled access, and size of the securable device.

19. The system of claim 1, wherein each securable device provides a user interface comprising a user input means and a user message output means.

20. The system of claim 19, wherein the user input means comprises at least one of a PIN input means and an end rental button.

21. The system of claim 19, wherein the user message output means comprises at least one of a message screen an indicator light, and an audio message indicator.

22. The system of claim 1, wherein the securable device comprises means operable, after receiving the unique PIN from the kiosk, to accept entry of a PIN, and permit access only upon entry of the unique PIN, said means being operable

irrespective of whether the securable device is communicatively coupled to the kiosk.

23. A method for assigning controlled access to a securable device, said method comprising:

enabling an authorized user to access a securable device, said securable device being selected by a kiosk from among a plurality of securable devices located remotely from the kiosk, by associating a unique personal identification number (PIN) with the authorized user and with the selected securable device, wherein:

the kiosk is operable to

transmit the unique PIN to the selected securable device;

inform the authorized user of the unique PIN;

provide the authorized user with location information of the selected securable device; and

the selected securable device is adapted to accept entry, at the securable device, of a PIN, and permits access only upon entry of the unique PIN.

24. The method of claim 23, wherein the securable device is at least one of a storage locker a rental appliance, a vending machine, a rental vehicle, a recreation device.

25. The method of claim 23, wherein associating a unique PIN with the authorized user and with the selected securable device comprises at least one of accepting a PIN selected by the user and randomly generating the PIN at the kiosk.

26. The method of claim 23, wherein enabling an authorized user to access the securable device comprises requiring payment from the authorized user.

27. The method of claim 23, wherein the kiosk selects the selected securable device, said selection being determined based on at least one of: actual assignment of other securable devices, projected assignment of other securable devices, and reserved assignment of other securable devices.

28. The method of claim 23, wherein enabling an authorized user to access a securable device is performed according to terms, said terms comprising at least one of price of the controlled access, duration of the controlled access, and size of the

securable device.

29. The method of claim 28, wherein the terms are at least one of selected by the authorized user and agreed to by the authorized user.

30. The method of claim 23, wherein the securable device comprises means operable, after receiving the unique PIN from the kiosk, to accept entry of a PIN, and permit access only upon entry of the unique PIN, said means being operable irrespective of whether the securable device is communicatively coupled to the kiosk.

31. Apparatus comprising:

a kiosk operable to enable an authorized user to access a securable device, said securable device selected by the system from among a plurality of securable devices located remotely from the kiosk, by associating a unique personal identification number (PIN) with the authorized user and with the selected securable device, wherein:

the kiosk is operable to transmit the unique PIN to the selected securable device, inform the authorized user of the unique PIN, and provide the authorized user with location information of the selected securable device; and

the selected securable device is adapted to accept entry, at the securable device, of a PIN, and permits access only upon entry of the unique PIN.

32. Apparatus comprising:

a securable device communicatively coupled to a kiosk, said kiosk being operable to select the securable device from among a plurality of securable devices located remotely from the kiosk, enable an authorized user to access the selected securable device by associating a unique personal identification number (PIN) with the authorized user and with the selected securable device, wherein:

the kiosk is operable to transmit the unique PIN to the selected securable device, inform the authorized user of the unique PIN, and provide the authorized user with location information of the selected securable device; and

the selected securable device is adapted to accept entry, at the securable

device, of a PIN, and permits access only upon entry of the unique PIN.

33. The apparatus of claim 32, further comprising means operable, after receiving the unique PIN from the kiosk, to accept entry of a PIN, and permit access only upon entry of the unique PIN, said means being operable irrespective of whether the securable device is communicatively coupled to the kiosk.

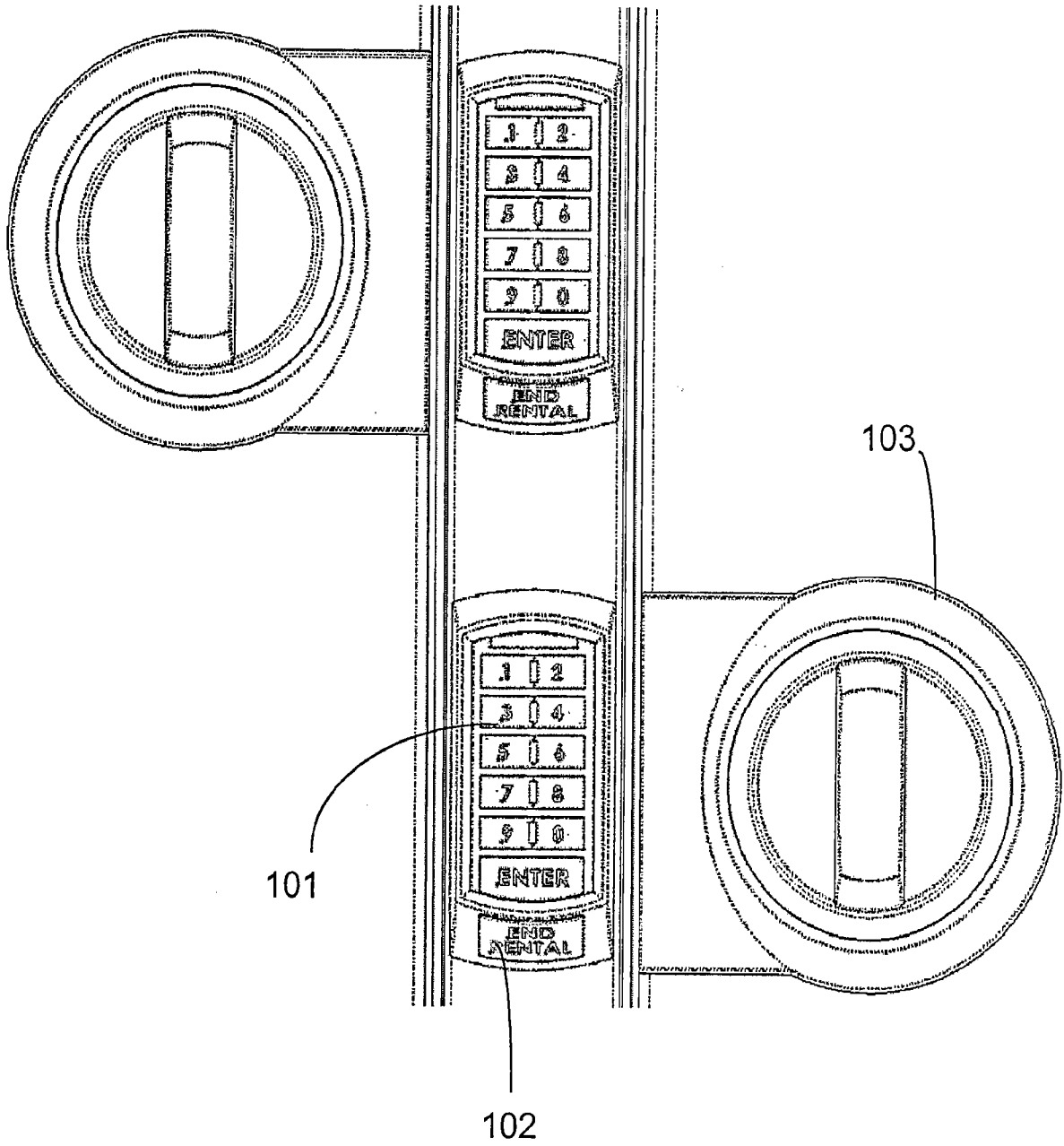


FIG. 1

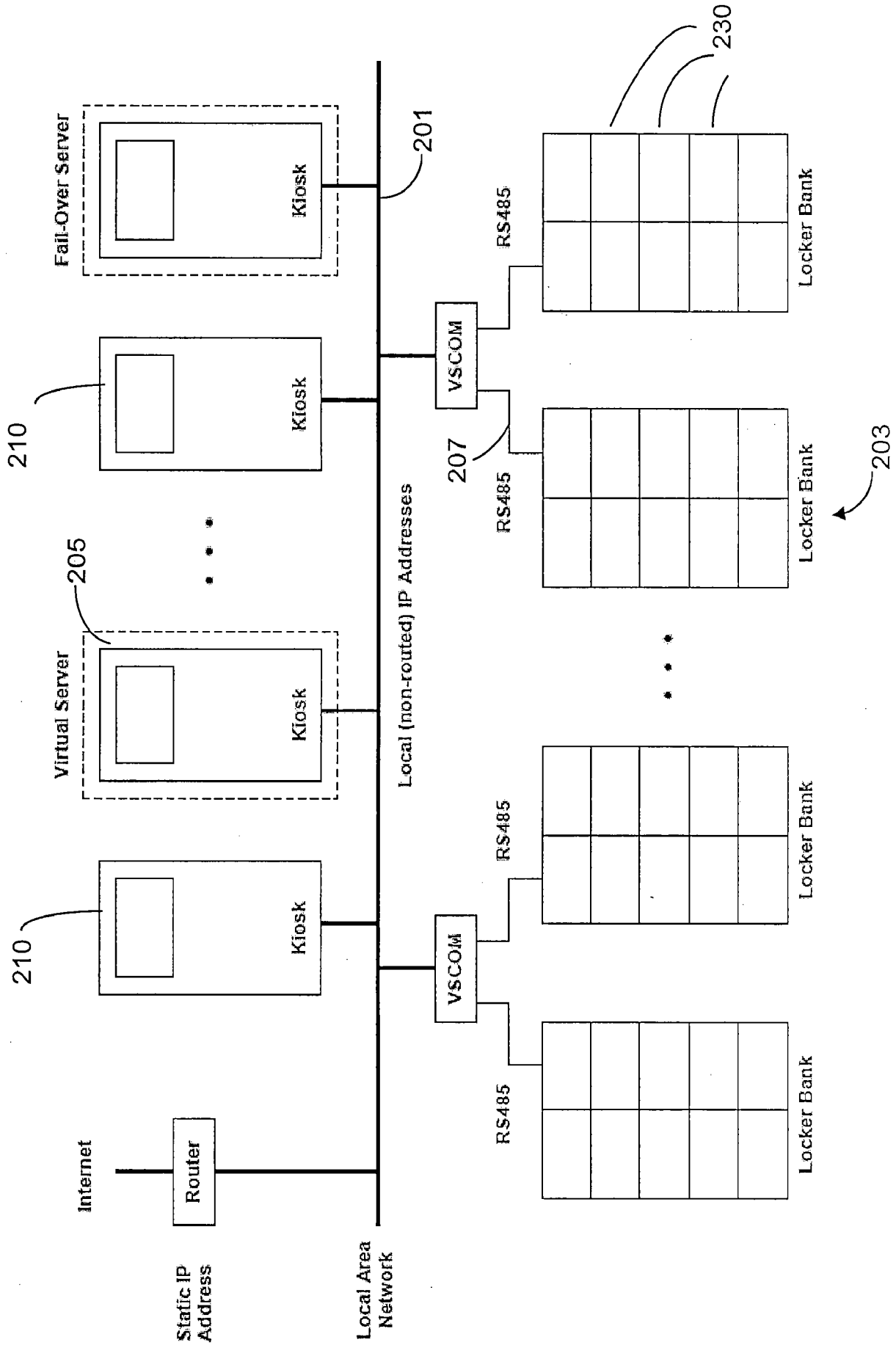


FIG. 2

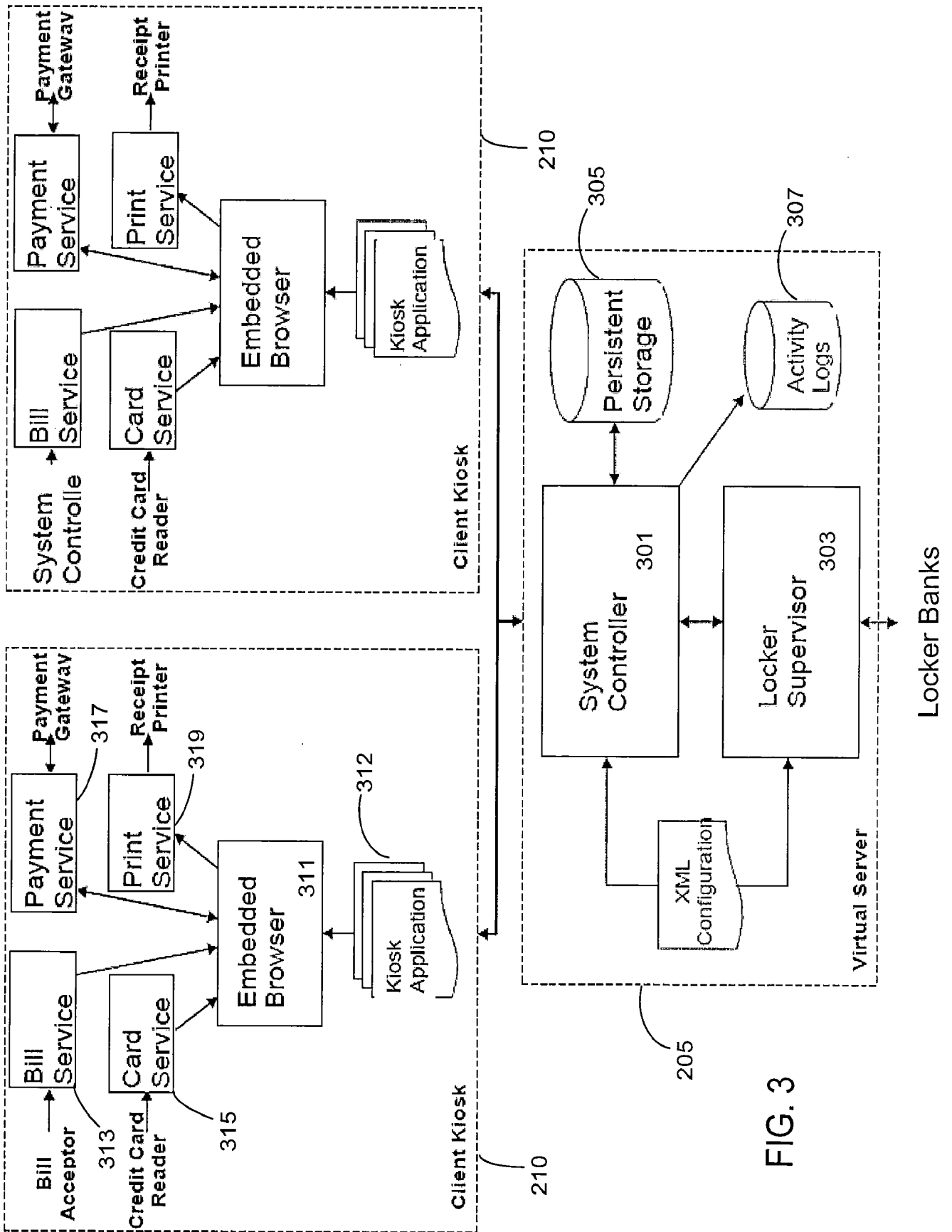


FIG. 3

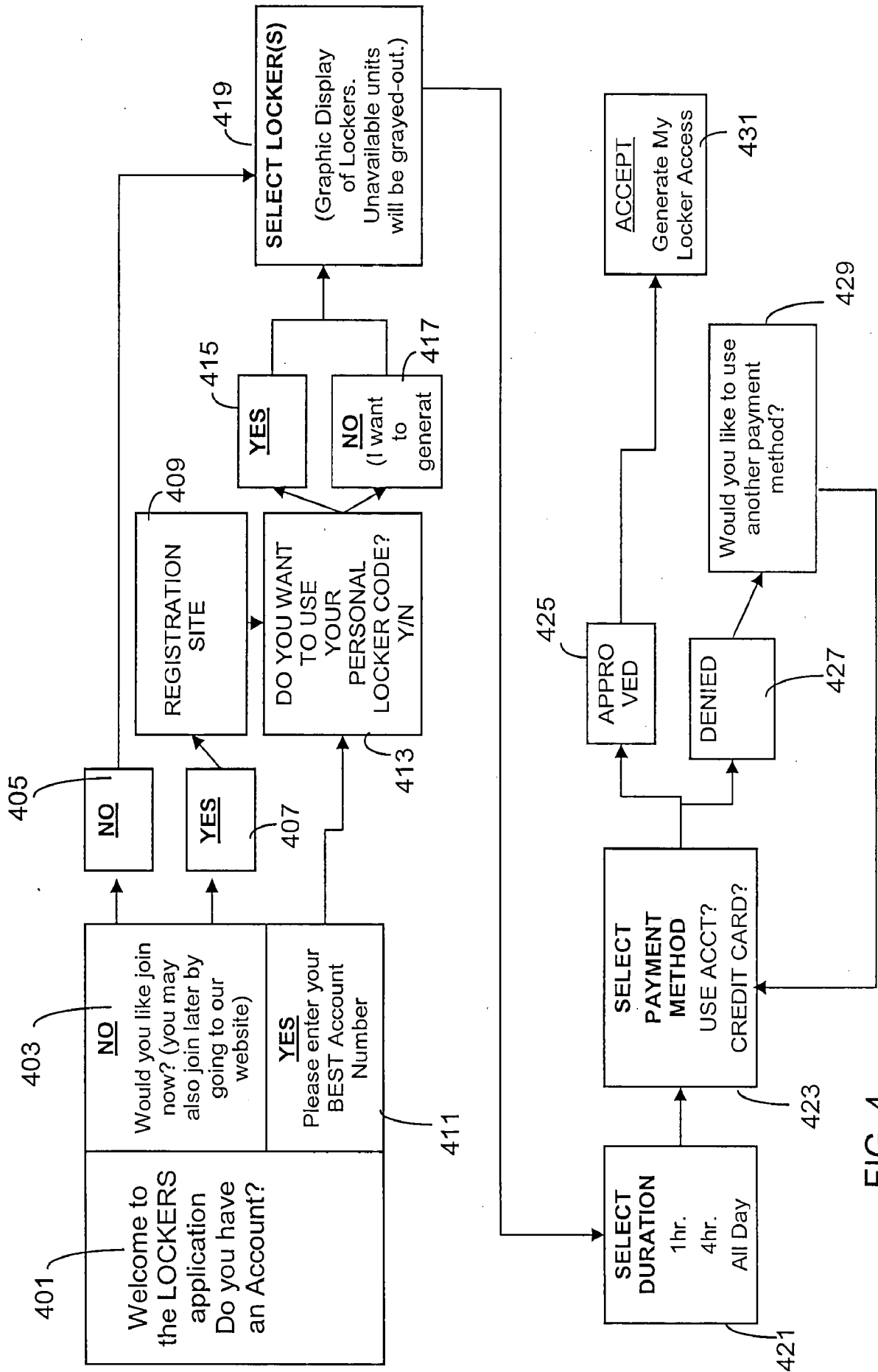


FIG. 4

Rent a Locker

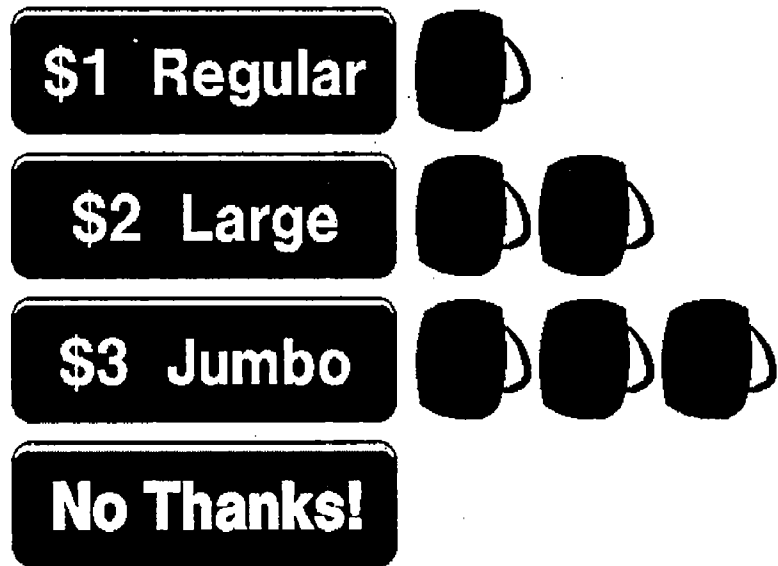


FIG. 5

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Your Rentals

Item	Price
Large Locker	\$2.00
Total	\$2.00
Amount paid	\$0.00
Balance	\$2.00

Swipe your credit card

OR

Insert cash (no change is given)

OR

Redeem a Coupon

Waiting for payment



Cancel

FIG. 6

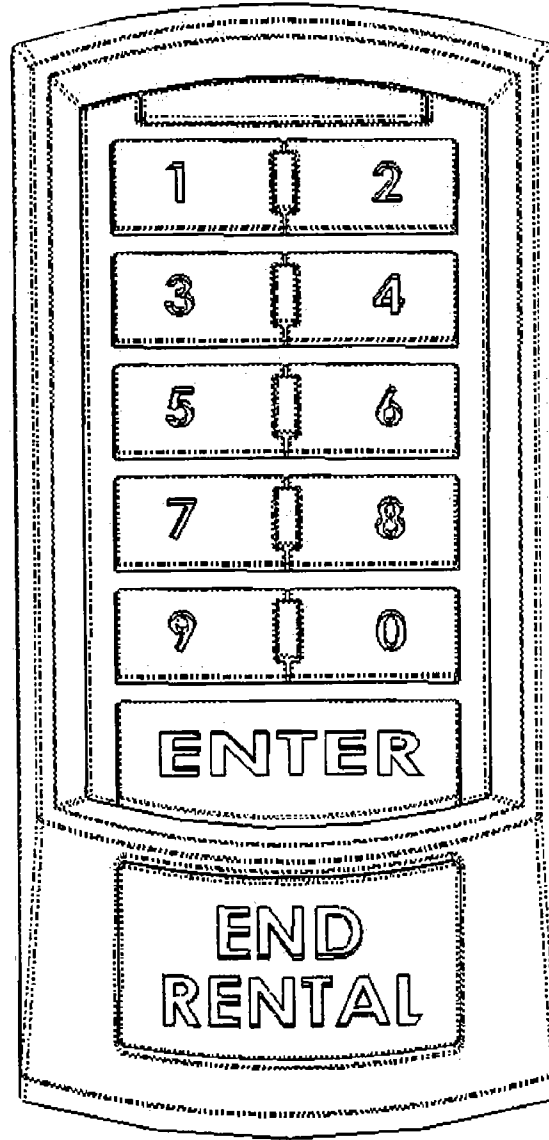


FIG. 7

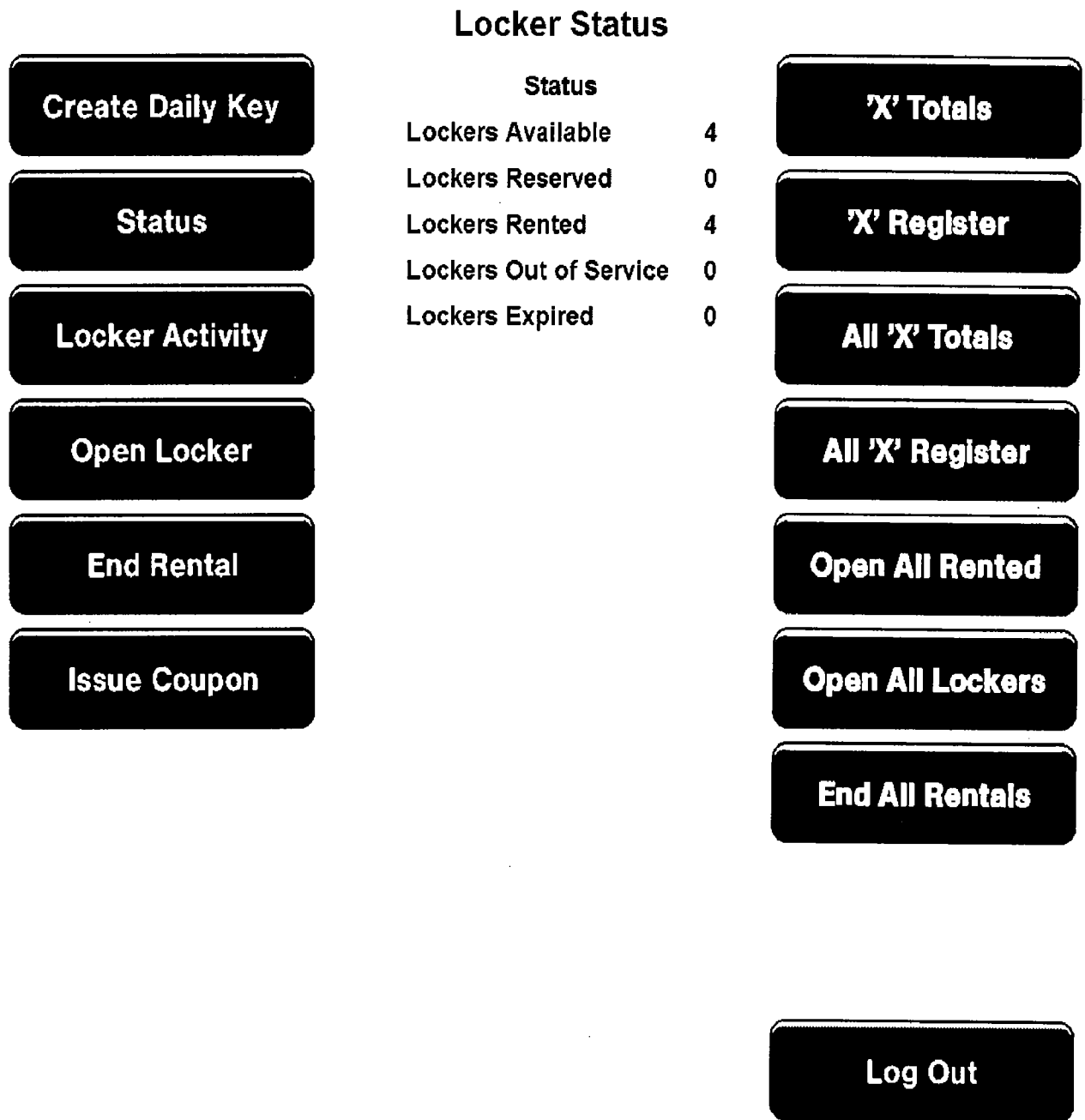


FIG. 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 08/83258

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H04B 1/02 (2008.04)

USPC - 340/5.65

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): H04B 1/02 (2008.04)

USPC: 340/5.65

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC: 340/5.65, 5.2, 571, 542; 726/2. (see search terms)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO - West - DB: PGPB, USPT, EPAB, JPAB

Search terms: locker, pin, storage, kiosk, sale, LAN, wireless, screen, message, record and secureable.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----	US 2002/0147525 A1 (CAYNE et al.) 10 October 2002 (10.10.2002), figure 1-11; paragraph [0003]-[0062].	1-15, 19-27 and 30-33
Y		16-18 and 28-29
Y	US 5,231,272 A (MARDON) 27 July 1993 (27.07.1993), figure 1-2; column 1, line 40 to column 6, line 10.	16-18 and 28-29

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

22 December 2008 (22.12.2008)

Date of mailing of the international search report

09 JAN 2009

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